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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/821,052	04/08/2004	Dustin Kirkland	AUS920031009US1	9656

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Darcell Walker
P.O. Box 25048
Houston, TX 77265

EXAMINER	
FIGUEROA, MARISOL	
ART UNIT	PAPER NUMBER
2617	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/821,052	KIRKLAND ET AL.	
	Examiner	Art Unit	
	Marisol Figueroa	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 October 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,4,5,10,11,14,15 and 19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,4,5,10,11,14,15 and 19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *08 April 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed on 10/21/2008 have been fully considered but they are not persuasive.

The Applicant argues that Glisic fails to teach or suggest the limitations of "the broadcasted connection availability message and particular technique of broadcasting the connection availability message, reflecting the closest calling activity threshold level that has been exceeded by the detected calling activity" (see page 9 of Applicant's arguments); the examiner respectfully disagrees.

Glisic teaches broadcasting information about the current load of the base station (i.e., connection availability messages) based on the comparison of the current load with channel capacity (i.e., calling capacity threshold), the terminals are informed about the load in the form of an enable/disable/reset signal (i.e., particular technique of broadcasting the connection availability message). Therefore, Glisic meets the claim limitations.

2. The rejections not addressed below have been withdrawn.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. **Claims 1, 11, 15, and 19** are rejected under 35 U.S.C. 103(a) as being unpatentable over MURASAWA et al. (US 6,760,594) in view of GLISIC et al. (US 5,754,541).

Regarding claims 1 and 11, Murasawa discloses a method (and computer program product) for accurately conveying wireless connection availability through a tower in a defined area comprising:

determining a maximum call connection capacity of the tower; establishing multiple threshold calling activity levels of the tower, the threshold levels beginning with an initial threshold level at a predetermined call connection count and having one or more threshold levels up to the maximum call connection capacity (Fig. 2; Abstract; col. 5, line 46-col. 6, lines 1-35; col. 5, lines 51-col. 7, lines 1-4; the system sets up in advance a plurality of thresholds (i.e., Th.I – Th.IV), comprising a critical threshold (Th.IV) that constitutes an upper limit on the number of calls capable of being assigned channels in the wireless section (i.e., maximum call connection capacity) and a maximum threshold (Th.III), a design threshold (Th.II), and a basic design basic call threshold (Th.I) that goes up to the critical threshold as shown in figure 2; note that thresholds Th.I-Th.IV are based on a number of calls to be assigned channels (i.e., calling activity));

monitoring calling activity through the tower by maintaining a constant count of wireless devices that are connected through the tower (col. 9, lines 22-27; the system keeps a count of the total numbers of calls (i.e., wireless devices connected) at the base station);

detecting when the calling activity has exceeded a threshold calling activity level of said multiple threshold calling activity levels for the tower; identifying the threshold calling activity level that is closest to the detected calling activity that has been exceeded by the detected calling activity (col. 9, line 54-col. 10, lines 1-46; the system compares the number of calls (m+n) with

the thresholds (Figs. 4-5) and detects when the number of calls (m+n) exceeds Th.III in step S27).

But, Murasawa does not particularly disclose broadcasting a connection availability message based on detected calling activity resulting from a maintained constant count of wireless devices connected through the tower, the broadcasted connection availability message and particular technique of broadcasting the connection availability message, reflecting the closest calling activity threshold level closest to the detected calling activity that has been exceeded by the detected calling activity.

However, Glisic teaches broadcasting a connection availability message based on detected calling activity resulting from a maintained constant count of wireless devices connected through the tower, the broadcasted connection availability message and particular technique of broadcasting the connection availability message, reflecting the closest calling activity threshold level closest to the detected calling activity that has been exceeded by the detected calling activity (Abstract; col. 3, lines 39-col. 4, lines 1-10; col. 5, lines 31-48; col. 5, lines 5-11; claim 2; Glisic teaches a system a base station that continuously monitors the load state of traffic channel by counting the number of terminal equipments, and transmits information about the load state of the traffic channel to the terminal equipments indicating whether the current channel load is lower than, equal to or higher than the channel capacity (i.e., plurality of connection availability messages), the terminal receives the load information in the form of an enable, disable/reset signal (i.e., particular technique of broadcasting the connection availability message), the load state of the BS is determined by comparing the load state of the channel with the channel capacity C (i.e., calling activity threshold) and detecting whether the

load is higher than C, lower than C, or equal to C; note that although Glisic shows only one threshold level to determine whether the load level is lower or higher than the channel capacity (i.e., maximum capacity), Murasawa teaches that this can be performed using multiple thresholds as shown in figure 2). Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention, to modify Murasawa to include the features of broadcasting a connection availability message based on detected calling activity resulting from a maintained constant count of wireless devices connected through the tower, the broadcasted connection availability message and particular technique of broadcasting the connection availability message, reflecting the closest calling activity threshold level closest to the detected calling activity that has been exceeded by the detected calling activity, as suggested by Glisic, since such a modification would continuously maintain subscriber terminals informed about the load state of the base station.

Regarding claim 15, the combination of Murasawa and Glisic disclose the computer program product as described in claim 11, in addition Murasawa discloses wherein said threshold establishing instructions further comprise instructions for establishing multiple threshold levels, the multiple threshold levels beginning with an initial threshold level at a predetermine call connection count and one or more threshold levels up to the maximum call connection capacity (Fig. 2; Abstract; col. 5, line 46-col. 6, lines 1-35; col. 5, lines 51-col. 7, lines 1-4; the system sets up in advance a plurality of thresholds (i.e., Th.I – Th.IV), comprising a critical threshold (Th.IV) that constitutes an upper limit on the number of calls capable of being assigned channels in the wireless section (i.e., maximum call connection capacity) and maximum threshold (Th.III),

design threshold (Th.II), and basic design basic call threshold (Th.I) that goes up to the critical threshold as shown in figure 2).

Regarding claim 19, the combination of Murasawa and Glisic disclose the method as described in claim 1, in addition Murasawa discloses wherein said establishing multiple call activity levels further comprises establishing an initial threshold level at a predetermine call connection count and having two or more threshold levels up to the maximum call connection capacity (Fig. 2; Abstract; col. 5, line 46-col. 6, lines 1-35; col. 5, lines 51-col. 7, lines 1-4; the system sets up in advance a plurality of thresholds (i.e., Th.I – Th.IV), comprising a critical threshold (Th.IV) that constitutes an upper limit on the number of calls capable of being assigned channels in the wireless section (i.e., maximum call connection capacity) and maximum threshold (Th.III), design threshold (Th.II), and basic design basic call threshold (Th.I) that goes up to the critical threshold as shown in figure 2).

5. **Claims 4, 5, 10, and 14** are rejected under 35 U.S.C. 103(a) as being unpatentable over MURASAWA et al. in views of GLISIC et al. and HASSLER et al. (US 5,751,795).

Regarding claim 4 and 14, the combination of Murasawa and Glisic disclose the method and computer program product as described in claims 1 and 11, but the combination fails to particularly disclose further comprising after said broadcasting of a connection availability message, detecting, receiving and displaying the broadcasted message at a wireless device in the area of the tower.

However, Hassler teaches a telephone switching system that broadcast information for users, such as displayable messages, to telecommunication terminals of a plurality of users. The system forms a broadcasting message to multiple ones of the display terminals to cause the

contents to be displayed (Abstract; col. 2, lines 45-59). Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention, to modify the combination to further include the steps of receiving and displaying the broadcasted message (i.e., network load information) at a wireless device in the area of the tower, as suggested by Hassler, because it would allow a plurality of users to know about the load state of the base station in a clear and reliable way, e.g., displaying information message at the wireless terminals, since it is a well known method for conveying information to users comprising communication terminals.

Regarding claims 5, the combination of Murasawa, Glisic, and Hassler disclose the method as described in claim 4, in addition Glisic discloses wherein the transmission of the broadcasted message is a periodic event based on the detected calling activity at the tower, the broadcasted message indicating the calling availability through that tower (col. 5, lines 41-44; the load information is transmitted continuously (i.e., periodic) to the subscriber terminals so that each subscriber terminal has access to the information at every moment).

But, Glisic does not particularly disclose wherein the broadcasted message is displayed on the wireless device.

However, Hassler teaches a telephone switching system that broadcast information for users, such as displayable messages, to telecommunication terminals of a plurality of users. The system forms a broadcasting message to multiple ones of the display terminals to cause the contents to be displayed (Abstract; col. 2, lines 45-59). Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention, to modify the combination to further include the steps of receiving and displaying the broadcasted message (i.e., network load information) on the wireless device, as suggested by Hassler, because it would allow a plurality

of users to know about the load state of the base station in a clear and reliable way, e.g., displaying information message at the wireless terminals, since it is a well known method for conveying information to users comprising communication terminals.

Regarding claim 10, Murasawa discloses a system and system for accurately conveying wireless connection availability comprising: a telephone tower for use in connecting wireless devices; a software routine encoded in a computer readable medium within the telephone tower (Fig. 20; BTS 6), said software routine capable of:

maintaining a constant count of devices that are connected through the tower (col. 9, lines 22-27; the system keeps a count of the total numbers of calls (i.e., wireless devices connected) at the base station);

detecting when the maintained constant count of wireless devices connected via the tower exceeds a predetermined threshold level; identifying the threshold calling activity level that is the closest threshold calling activity level to the detected calling activity that has been exceeded by the detected calling activity (Fig. 2; Abstract; col. 5, line 46-col. 6, lines 1-35; col. 5, lines 51-col. 7, lines 1-4; col. 9, line 54-col. 10, lines 1-46; the system sets up in advance a plurality of thresholds (i.e., Th.I – Th.IV) based on the number of calls capable of being assigned channels in the wireless section (i.e., calling activity) and the system compares the number of calls (m+n) with the thresholds (Figs. 4-5) and can detect when for example, the number of calls (m+n) exceeds Th.III in step S27); and

a wireless device for use in communicating via the telephone control tower (Fig. 20; MS 7).

But, Murasawa does not particularly disclose broadcasting a connection availability message based on detected calling activity resulting from a maintained constant count of wireless devices connected through the tower, the broadcasted connection availability message and particular technique of broadcasting the connection availability message, reflecting the closest calling activity threshold level closest to the detected calling activity that has been exceeded by the detected calling activity.

However, Glisic teaches broadcasting a connection availability message based on detected calling activity resulting from a maintained constant count of wireless devices connected through the tower, the broadcasted connection availability message and particular technique of broadcasting the connection availability message, reflecting the closest calling activity threshold level closest to the detected calling activity that has been exceeded by the detected calling activity (Abstract; col. 3, lines 39-col. 4, lines 1-10; col. 5, lines 31-48; col. 5, lines 5-11; claim 2; Glisic teaches a system a base station that continuously monitors the load state of traffic channel by counting the number of terminal equipments, and transmits information about the load state of the traffic channel to the terminal equipments indicating whether the current channel load is lower than, equal to or higher than the channel capacity (i.e., plurality of connection availability messages), the terminal receives the load information in the form of an enable, disable/reset signal (i.e., particular technique of broadcasting the connection availability message), the load state of the BS is determined by comparing the load state of the channel with the channel capacity C (i.e., calling activity threshold) and detecting whether the load is higher than C, lower than C, or equal to C; note that although Glisic shows only one threshold level to determine whether the load level is lower or higher than the channel capacity

(i.e., maximum capacity), Murasawa teaches that this can be performed using multiple thresholds as shown in figure 2). Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention, to modify Murasawa to include the features of broadcasting a connection availability message based on detected calling activity resulting from a maintained constant count of wireless devices connected through the tower, the broadcasted connection availability message and particular technique of broadcasting the connection availability message, reflecting the closest calling activity threshold level closest to the detected calling activity that has been exceeded by the detected calling activity, as suggested by Glisic, since such a modification would continuously maintain subscriber terminals informed about the load state of the base station.

But, the combination of Murasawa and Glisic does not particularly disclose software routine encoded in a computer readable medium within the wireless device for detecting, receiving and displaying connection availability via the tower.

However, Hassler teaches a telephone switching system that broadcast information for users, such as displayable messages, to telecommunication terminals of a plurality of users. The system forms a broadcasting message to multiple ones of the display terminals to cause the contents to be displayed (Abstract; col. 2, lines 45-59). Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention, to modify the combination to further include software routine encoded in a computer readable medium within the wireless device for detecting, receiving and displaying connection availability via the tower, as suggested by Hassler, because it would allow a plurality of users to know about the load state of the base station in a clear and reliable way, e.g., displaying information message at the wireless terminals,

since it is a well known method for conveying information to users comprising communication terminals.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marisol Figueroa whose telephone number is (571) 272-7840. The examiner can normally be reached on Monday Thru Friday 8:30 a.m. - 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vincent P. Harper can be reached on (571) 272-7605. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/VINCENT P. HARPER/
Supervisory Patent Examiner, Art Unit 2617

/Marisol Figueroa/
Examiner, Art Unit 2617